

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A cell creation method of control line signals for an ATM network comprising a plurality of multiplexing equipments realizing communication among information terminals, comprising the steps of:

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creating cells from the user data to be transmitted from one of said information terminals to another one of information terminals and control line signals indicating control line information input from said one information terminal, said control line information being necessary for said another information terminal to receive said user data; and ~~between a pair of the communicating information terminals and control line signals indicating control line information relating the transmission of said user data at said multiplexing equipment connected to said pair of the communicating information terminals respectively, and~~

transmitting said cells including said user data and said control line information to said another information terminal ~~between said pair of the communicating information terminals.~~

2. (original) A cell creation method of control line signals in accordance with claim 1, wherein a portion of a cell payload to be transmitted is mapped for transmitting said control line signals when creating said cell from said control line signals, and

said control line signals are multiplexed into said cell at the transmission side and separated from said cell at reception side.

3. (currently amended) A cell creation method of control line signals for an ATM network comprising a plurality of multiplexing equipments realizing communication among information terminals, comprising the steps of:

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creating cells from user data to be transmitted between a pair of the communicating information terminals and control line signals indicating control line information relating the transmission of said user data at said multiplexing equipment connected to said pair of the communicating information terminals respectively; and

transmitting said cells including said user data and said control line information between said pair of the communicating information terminals, in accordance with claim 2,

wherein a portion of a cell payload to be transmitted is mapped for transmitting said control line signals when creating said cell from said control line signals,

wherein said control line signals are multiplexed into said cell at the transmission side and separated from said cell at reception side, and

wherein a ~~signal~~ Receive Data/Carrier Detect (RS/CD) signal of said control line signals is extended for a predetermined period before said RS/CD signal RS/CD is multiplexed.

4. (original) A cell creation method of control line signals in accordance with claim 1, wherein said multiplexing equipment connected to said pair of the communicating information terminals has two operating modes which can be selected, one being a control line signal transmission mode for transmitting said control line signals by creating said cell from said control line signals, the other being a constant fix mode for executing a full duplex communication.

5. (currently amended) A multiplexing equipment, being one of a plurality of multiplexing equipment included in an ATM network for realizing communication between information terminals, connected to one of the communicating information terminals, comprising:

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multiplexing means for creating cells from user data to be transmitted from one of said information terminals to another one of information terminals, and control line signals indicating control line information input from said one information terminal, said control line information being necessary for said another information terminal to receive said user data; and ~~control line signals outputted from one of said information terminals at the transmitting side, and~~

means for transmitting said cells including said user data and ~~separation means separating said control line information signals from said cells transmitted via said ATM network and outputting said separated control line signals to one of said~~ another information terminals terminal at reception side.

6. (canceled).

7. (new): A cell creation method according to claim 1, wherein said line control signal includes a Receive Data/Carrier Detect (RS/CD) signal that is a signal necessary for half duplex communication and that indicates there is data to be transmitted to said another communication terminal.

8. (new): A cell creation method of control line signals in accordance with claim 2, wherein a portion of a cell payload to be transmitted is mapped for transmitting said control line signals when creating said cell from said control line signals, and

wherein said control line signals are multiplexed into said cell at the transmission side and separated from said cell at reception side.

9. (new): A cell creation method of control line signals in accordance with claim 3, wherein said RS/CD signal of said control line signals is extended for a predetermined period before said RS/CD signal is multiplexed.

10. (new): A cell creation method of control line signals in accordance with claim 1, wherein said multiplexing equipment connected to said pair of the communicating information terminals has two operating modes which can be selected, one being a control line signal transmission mode for transmitting said control line signals by creating said cell from said control line signals, the other being a constant fix mode for executing a full duplex communication.

11. (new): A multiplexing equipment, being one of a plurality of multiplexing equipment included in an ATM network for realizing communication between information terminals, connected to a pair of the communicating information terminals, comprising:

multiplexing means which creates cells from user data output from one of said pair of information terminals and control line signals indicating line control information outputted from said one information terminal, and the control information being necessary for said another information terminal of the pair to receive said user data; and

separation means separating said control line signals and said user data from said cells transmitted via said ATM network and outputting said separated control line signals and the user data to one of said information terminal reception side.

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12. (new): A multiplexing equipment according to claim 6, wherein said line control signal includes an Receive Data/Carrier Detect (RS/CD) signal that is a signal necessary for half duplex communication and that indicates there is data to be transmitted to said another communication terminal.

13. (new): A multiplexing equipment according to claim 7, wherein said multiplexing means maps a portion of a cell payload to be transmitted for transmitting said control line signals when creating said cell from said control line signals.

14. (new): A multiplexing equipment according to claim 8, wherein said multiplexing means comprising:

extending means which extends Receive Data/Carrier Detect (RS/CD) of said control line signals for a predetermined period before RS/CD signal is multiplexed.

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15. (new): A multiplexing equipment according to claim 6, comprising:

two operating modes which can be selected, one being a control line signal transmission mode for transmitting said control line signals by creating said cell from said control line signals, the other being a constant fix mode for executing a full duplex communication.
